

ABSTRACT

Background and objectives

Preterm labour complicates 5-10% of pregnancies and is a leading cause of neonatal morbidity and mortality worldwide. It is a major public health problem in terms of loss of life, long-term disability (cerebral palsy, blindness, deafness, chronic lung disease) and health care costs both in the developing and the developed world. There is need for tocolytic therapy to reduce perinatal mortality and morbidity by delaying delivery at least for 48 hours to allow time for therapeutic effects of corticosteroids. Research is needed to develop a drug, which has a greater uterine specificity with no effect on other organs with a rapid onset and a short duration of action.

Objectives

1. compare the effectiveness of transdermal nitroglycerine/ intravenous MgSO₄/ oral nifedipine as short term tocolytic.
2. To find the mean prolongation of gestation.

Methods

The study is a Hospital based prospective study undertaken in department of Obstetrics and Gynaecology, Govt Mohan Kumaramangalam Medical College and Hospital, Salem. After fulfilling the inclusion and exclusion criteria a total of 120 cases with preterm labour were selected and divided into 3 groups. One treated with transdermal nitroglycerine, one with intravenous MgSO₄ and one with oral nifedipine.

Results

Success rate was 87.5% with NTG group , 82.5% with MgSO₄ and Nifedipine group. Mean prolongation of pregnancy was 12.28 days in MgSO₄ group, 13.5 in NTG group, 7.45 in Nifedipine group and Mean birth weight was 2.366kg in MgSO₄ group, 2.473kg in NTG group, 2.297 kg in Nifedipine group. Most common side effect with Nitroglycerine patch was headache, intravenous MgSO₄ was vomiting and Nifedipine was hypotension.

Interpretation and Conclusion

Transdermal Nitroglycerine patch is more effective in preventing preterm labour compared to intravenous MgSO₄ and oral nifedipine.